



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,261	03/29/2004	Shaun Kazuo Wakumoto	200400256-1	2770
22879	7590	09/10/2007		
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER JONES, PRENELL P	
			ART UNIT	PAPER NUMBER
			2616	
			MAIL DATE	DELIVERY MODE
			09/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/812,261

Applicant(s)

WAKUMOTO ET AL.

Examiner

Prenell P. Jones

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-10, 13-14 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/21/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 7 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Jain et al (US Pat 7,111,073).

Regarding claims 1 and 13, Jain et al (US Pat 7,111,073) discloses a transmission and switching network of routers, wherein the architecture includes multiple set of nodes/routers, such as a first cluster of routers and a second cluster of routers, wherein both the first cluster and the second cluster are equal to one cluster of routers (a third cluster of routers), and router cluster are associated with instances, and further the multiple cluster of routers are connected to a mesh backbone (Abstract, Figs. 1, 6, 8, 10, col. 5, col., 8, col. 36, col. 37 and col. 38,). In addition, all router clusters are associated with domains (mesh domain) (col. 37, line 12-30) and active running software (mesh algorithms) (col. 7, lines 6-28).

Regarding claim 7, Jain further discloses multiple ports for transmission and receiving data (Fig. 7), input/output controller coupled to ports, and memory coupled to controller, wherein a system memory is utilized to store several instances (Fig. 1A, 7, line 10 thru col. 8, line 15).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2-4, 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jain et al (US Pat 7,111,073) in view of Zboril (US PG PUB 20030117945) and Higasiyam (US PG PUB 20040180454).

Regarding claims 2-4, 8, 14 and 15, Jain et al (US Pat 7,111,073) discloses minimizing transmission delay and switching network of routers, wherein the architecture includes multiple set of nodes/routers, such as a first cluster of routers and a second cluster of routers, wherein both the first cluster and the second cluster are equal to one cluster of routers (a third cluster of routers), and router cluster are associated with instances, and further the multiple cluster of routers are connected to a mesh backbone (Abstract, Figs. 1, 6, 8, 10, col. 5, col., 8, col. 36, col. 37 and col. 38,). In addition, all router clusters are associated with domains (mesh domain) (col. 37, line 12-30) and active running software (mesh algorithms) (col. 7, lines 6-28).

However, Jain is silent on a link between a mesh port of a switch in a first set and a mesh port of a switch in the third set wherein both mesh ports are configured to be members of the first mesh domain.

In a communication system that utilizes minimizing delay, Zboril discloses multiple sets of switches linked together via mesh interconnection, multiple links and mesh ports (Fig. 1, paragraphs 0026-0029, 0031, 0032, 0033), and Higasiyama discloses mesh connecting ports interconnecting plurality of sets of bridges/switches wherein the mesh ports of the plurality of sets of switches share members in a mesh domain via the link interconnection (paragraphs 0012, 0116, 0118, 0143, 0146, 0186, 0252).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement a link between a mesh port of a switch in a first set and a mesh port of a switch in the third set wherein both mesh ports are configured to be members of the first mesh domain as taught by the combined teachings of Zboril and Higasiyama with teachings of Jain for the purpose of further minimizing delay in the transmission and switching of data in a mesh architecture.

Regarding claim 9, as indicated above, Jain et al (US Pat 7,111,073) discloses minimizing transmission delay and switching network of routers, wherein the architecture includes multiple set of nodes/routers, such as a first cluster of routers and a second cluster of routers, wherein both the first cluster and the second cluster are equal to one cluster of routers (a third cluster of routers), and router cluster are associated with instances, and further the multiple cluster of routers are connected to a mesh backbone (Abstract, Figs. 1, 6, 8, 10, col. 5, col., 8, col. 36, col. 37 and col. 38,). In addition, all router clusters are associated with domains (mesh domain) (col. 37, line 12-30) and active running software (mesh algorithms) (col. 7, lines 6-28), and Zboril discloses multiple sets of switches linked together via mesh interconnection, multiple links and mesh ports (Fig. 1, paragraphs 0026-0029, 0031, 0032, 0033), and Higasiyama discloses mesh connecting ports interconnecting plurality of sets of bridges/switches wherein the mesh ports of the plurality of sets of switches share members in a mesh domain via the link interconnection (paragraphs 0012, 0116, 0118, 0143, 01460186, 0252).

However, Jain, Zboril and Higasiyama are silent on at least at least one port configured to be a non-mesh port that is not a member of any mesh domain.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement at least at least one port configured to be a non-mesh port that is not a member of any mesh domain as taught by the combined teachings of Zboril and Higasiyama with teachings of Jain for the purpose of further minimizing delay in the transmission and switching of data in a mesh architecture

Allowable Subject Matter

6. Claims 16 and 17 are allowed over prior art.

Art Unit: 2616

7. Claims 5, 6 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fail to teach or suggest fairly with respect to claim 5, 11 and 16, switches configured to insert a mesh identifier in a packet to identify which instance of the meshing software is associated with the packet, with respect to claim 12, apparatus configured with a mesh debug protocol which periodically advertises the mesh identifiers associated with the apparatus to other switches, and with respect to claim 17, periodically advertising from a switch that mesh identifiers associated with the switch to other switches in the switching domain.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

September 4, 2007


WING CHAN
SUPERVISORY PATENT EXAMINER
9/4/07